# **CAMPFIRES AND SCIENCE: WILD DNA**



# A citizen science project by 'Science for All'

'Science for All' is a not-for-profit organisation which is training members of the public to get involved in research. For this project we are training people to collect environmental DNA samples and contribute to improving biodiversity in the Victorian Central Highlands.

We invite anyone who can give their time and share their skills, knowledge or expertise to get involved. For this research to succeed, we need people to help manage it, gather data, analyse data and apply the learning to improve evidence-based management of our land. We recognise that knowledge takes many forms - this includes people who are subject area experts, people with traditional, indigenous or local knowledge – and those with big dreams and big ideas.

## What is the project?

Our dream is to involve the public in collecting data to support evidence-based environmental management. Working with experts, we will train our volunteers to collect and analyse environmental DNA samples from critically endangered species in the Victorian Central Highlands. We will be looking for Greater Gliders, Leadbeater Possums, a freshwater fish called a Barred Galaxis – and a final species to be decided by the public, in transparent consultation with experts. This knowledge will help inform evidence-based management of natural heritage and help preserve Victoria's unique biodiversity.

We will run free events in Marysville, Heallesville and Toolangi, training local people how to collect environmental DNA samples.

All learning from this project will be shared publicly, open access, for free.

#### Who are we?

We are a **not-for-profit organisation 'Science for All'** – our dream is to support everyone in the world to get involved in shaping the future of human knowledge. Our values are:

- Open anyone, anywhere can access any of the data – for free
- Transparency all decision making, code, data and documents will be in the public domain
- **Democratic** all decisions will be made in the open, involving anyone who wants to take part

We are guided by a transparent decision-making process that anyone can be part of.

Get involved here!

## What's the science?

Environmental DNA is a relatively new technique that has been used by Melbourne Water to detect rare species – it can be cheaper than other sampling methods, quicker, easier and arguably more ethical as it does not involve capturing animals or interfering with them in any way.

Collection of environmental DNA samples can be as simple as taking a syringe of water from a river and putting it in the post to be sequenced (there's more to it than that – that's covered in the training!) – although we are also hoping to develop novel sampling techniques for species living mostly in trees.

## What's the tech?

All animals shed cells, which have mitochondria in them. DNA from these is copied many times in a machine and then decoded into a computer, showing us which animals live where. We will then share all the code publicly, so anyone can be involved in analysing and using this data.

Contact info@scienceforall.world

or visit ScienceforAll.World to learn more.

# How is this project possible?

Science for All's work on this project is being supported financially by the **Victorian Government** under the auspices of the **Royal Society of Victoria**, who are also offering in-kind support.

'Science for All' will be paying our community facilitators for their time and the organisation EnviroDNA for DNA sequencing services and any administration costs. The project will also rely on in-kind donations of time and expertise. All financial transactions relating to this project will be reported publicly and transparently. We are interested in working in partnership with anyone or any organisation – everyone is welcome - get involved!

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